

A Case of *Giardia Spp* Infection in a 3weeks-Old White Fulani Calf

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INTRODUCTION

Giardiasis is an intestinal protozoal infection that affects wild and domestic animals. It can also be transmitted to humans through contact with infected animals (Dixon, 2021). Transmission is mainly through the feco-oral route, with the occurrence of diarrhea been the most common symptom. The presence of watery/pasty mucoid faeces in young animals is highly suggestive of the infection (Patton, 2013). *Giardia spp* is among the key intestinal parasite of ruminants leading to a significant rate of deaths in calves (Hailu et al, 2020).

History: On the 6th of May 2021, a 3 week-old White Fulani calf was presented to the Large Animal Clinic floor of the University of Jos, Veterinary Teaching Hospital, with history of weakness, inappetance and diarrhea for the past 5 days. The calf had been treated with antibiotics for the last 3 days prior to presentation to the hospital with no improvement.

Vital parameter is as follows:

T - 38.5°C

P - 85 beats/min

R - 33 breaths/minute

PLAN: Carry out a rapid laboratory diagnosis of the cause of the infection and institute appropriate treatment base on the outcome of the test carried out.

INTERVENTION: To aid in rapid diagnosis of the ongoing infection in the calf, WITNESS™ BoviD-5 Test Kit a chromatographic immunoassay for the rapid, qualitative detection of cryptosporidium sp. Antigen, Rotavirus antigen, Coronavirus antigen, *Escherichia Coli* K99 and *Giardia lamblia* antigen in calf faeces was used.

Faecal sample was collected using disposable swab and the processes for carrying out the test was followed based on the manufacturer's instructions. The appearance of two (2) bands on the control C and test T areas of the test kit indicates a positive result for a particular antigen.



Fig 1: A WITNESS™ BoviD-5 Test Kit showing collected fecal sample positive for *Giardia* antigen

Management

The calf was placed on metronidazole (25 mg/kg) for 5 days and Albendazole (5-20 mg/kg/day for 3 days). And showed marked improvement 5 days after the therapy.

References

- [1] Patton, S (2013). Overview of Giardiasis. <https://www.msdsvetmanual.com/digestive-system/giardiasis-giardia/overview-of-giardiasis>
- [2] Hailu, M., Asmare, K., Gebremedhin, E. Z., Gizaw, D., Di Marco, V and Vitale, M(2020). *Giardia* infections in dairy calves in southern Ethiopia. *Parasite Epidemiology and Control*, Volume 10, 2020:e00155.
- [3] Dixon, B. (2020). *Giardia duodenalis* in humans and animals – Transmission and disease, *Research in Veterinary Science*. Volume 135, 2021, Pp 283-289, ISSN 0034-5288.

